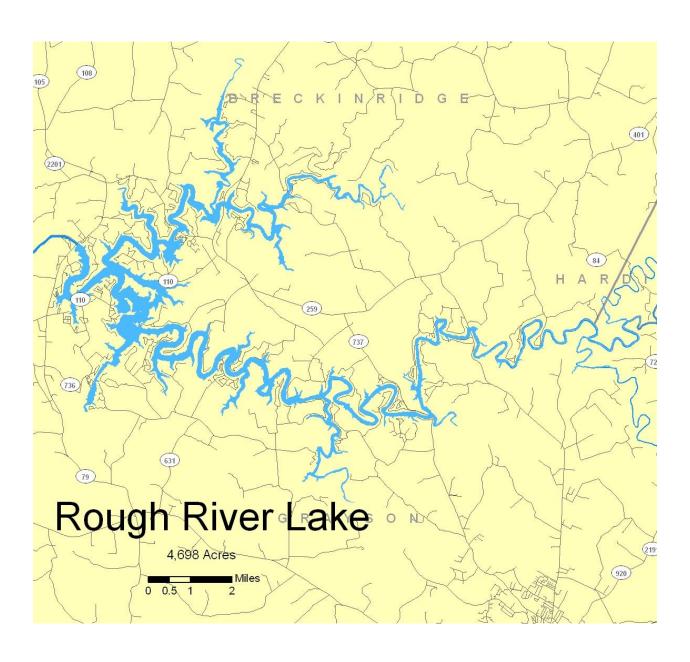
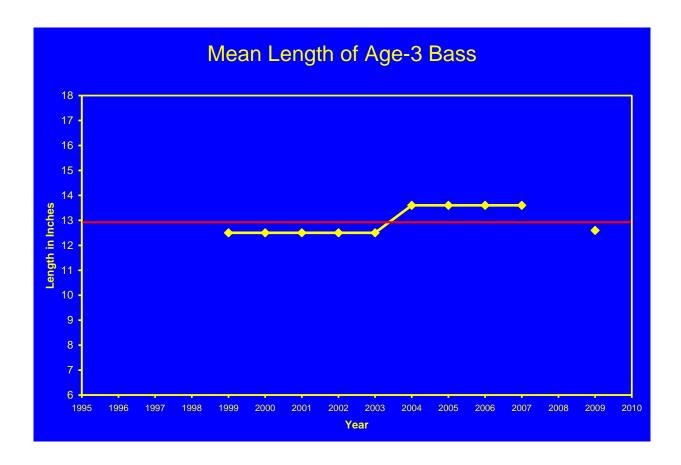
### **Rough River Lake Bass Assessment 2010**

Rough River Lake is a 4,700 acre multipurpose reservoir on Rough River. This lake, located in Breckinridge, Grayson and Hardin counties has 9 boat ramps and 3 marinas and is a popular fishing destination for largemouth bass, hybrid striped bass, crappie and catfish. The following graphs show trends and rankings for each of the five population parameters used in the largemouth bass assessment. Please see "Understanding The Largemouth Bass Assessment" article for an explanation of how the assessment works.



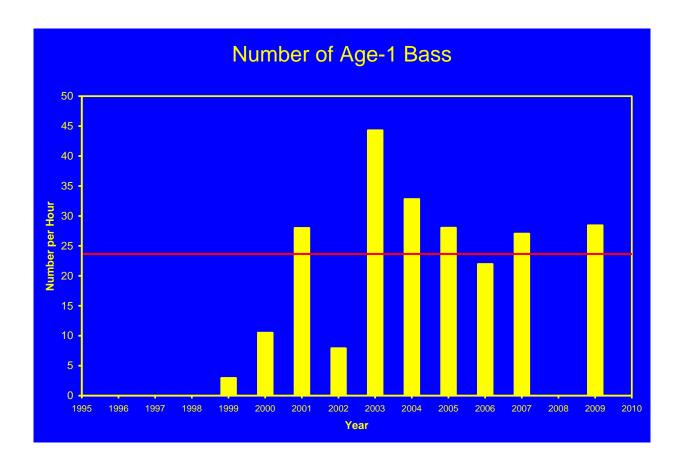
# Parameter 1 – Length at age-3 (growth rate)

At Rough River Lake, the length of 3 year old largemouth bass has averaged 12.9 inches since 1999 (represented by the red line). This population parameter is important for management purposes because it tells how well fish are growing and is derived from the total lengths of all three-year old bass collected. When compared to other lakes of similar size, this is considered "Very Good" growth for largemouth bass. Growth rate can be variable and is generally related to factors such as population density, food availability, and weather.



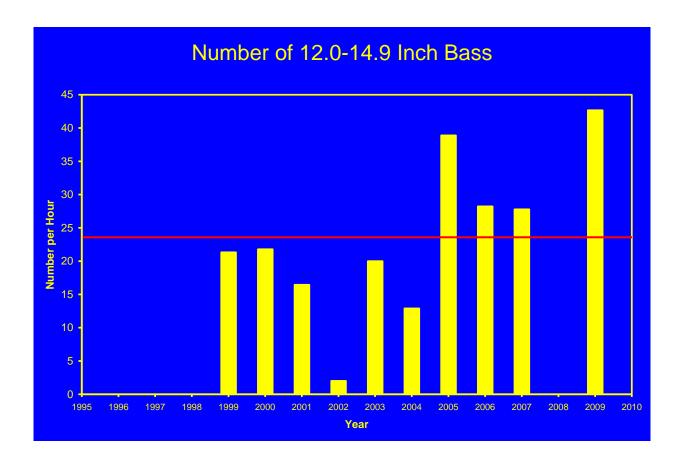
# Parameter 2 – Numbers of age-1 bass (how good the spawn was)

KDFWR looks at the electrofishing catch rate of 1 year old largemouth bass to determine the success of the previous year's spawn. This is an important parameter because the number of age-1 bass collected is used as a predictor for how good the fishing will be in years to come. At Rough River Lake, age-1 largemouth bass catch rates have averaged just over 23.00 fish/hour of electrofishing. When compared to other lakes in this size range, this is considered to be a "Fair" age-1 catch rate.



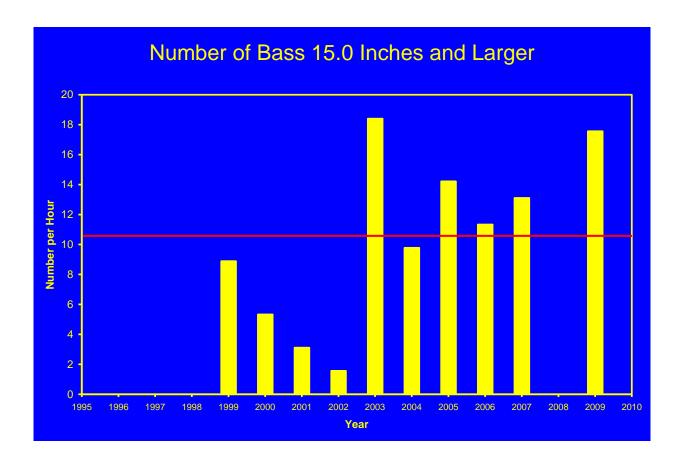
### Parameter 3 - Numbers of 12.0-14.9 inch bass

The electrofishing catch of 12.0-14.9 inch largemouth bass has averaged 23.20 fish/hour since 1999, which gives Rough River Lake a "Good" rating compared to other lakes of similar size. This parameter is important because these fish will soon grow to exceed the 15.0 inch legal harvestable size limit and result in an increased number of larger bass available to anglers. The catch rate for 2009 was the highest recorded in the last decade of monitoring.



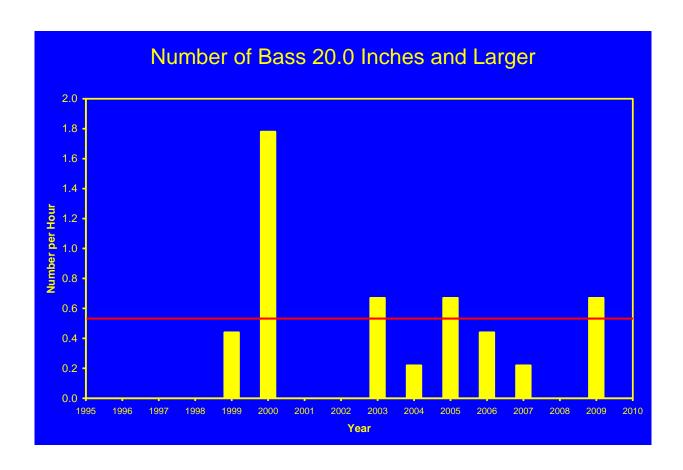
# Parameter 4 – Numbers of 15.0 inch and larger bass

This parameter reflects the number of legally harvestable fish in the population. The catch rate of 15.0 inch and larger largemouth bass at Rough River Lake has averaged 10.33 fish/hour of electrofishing over the past 10 years and has been increasing since 2002. The high catch rate of both 12.0-14.9 inch and  $\geq$ 15.0 inch bass indicate bass fishing should be very good for the next several years.



# Parameter 5 – Numbers of 20.0-inch and larger bass

The electrofishing catch of 20.0 inch and larger largemouth bass has averaged 0.51 fish/hour for Rough River Lake from 1999 to 2009. When compared to similarly sized lakes, this catch rate is considered "Fair". Fish of this size in a reservoir environment are difficult to sample consistently which accounts for much of the variability in catch rates observed. Increases in the number of 12.0-14.9 inch and  $\geq$ 15.0 inch bass should lead to a higher catch rate of  $\geq$ 20.0 inch bass in 2010.



#### Overall – Total Assessment Score (All five parameters added together)

Overall the largemouth bass population assessment at Rough River Lake has averaged a "Good" rating (12.4) for the last 10 years (indicated by the red line). Sampling could not be conducted in 2008 due to extremely high water levels during the sampling time frame. Largemouth bass assessment scores at Rough River Lake have been variable but are generally better now than they were prior to 2002 due to an increased number of ≥12.0 inch bass in the population. Sampling data can be highly variable and reiterates the fact that data must be looked at over time and information collected in a given year cannot be used singularly to make management decisions. Yearly sampling will continue to monitor this fishery.

